

Work Order ID 148058

148058

Order to ship July 8th
or sooner. Page 1

June 22, 2016 10:32:30 AM

Machined part coming June 27 or so.

Item ID: D4038-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Angle Assy Fwd LH

Start Date: 6/22/2016 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 7/6/2016 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: SH Date: 6/22/16 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4038	E

100	Pick Kit	0.00
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100

Packaging	Memo	0.03
-----------	------	------

Packaging

JUN 28 2016

DAS
6
9-59

110		0.00
-----	--	------

110

Small Fab	Memo	0.06
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Small Fab

Assemble as per dwg

1 FF

JUN 29 2016

120	QC5- Inspect part completeness to step on W/O	0.00
-----	---	------

120

QC	Memo	0.00
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Quality Control

1

DAS
38
9-89

JUL 05 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Page 2

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 Revision ID: Stop ***NS2***
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 Start Date: 6/22/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 7/6/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
121	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
121									
Powdercoat	Memo	0.01							
Powder Coating	***MASK INTERIOR OF BLOCKS AND MASK ALL HOLES WITHOUT BOLTS*** <i>M 134631</i>								
	START TIME: <i>1:30</i>								
	OVEN TEMPERATURE: <i>300°</i>								
	FINISH TIME: <i>2:00</i>								
122	QC3- Inspect Part Finish	0.00							
122									
QC	Memo	0.00							
Quality Control									
130	Identify as per dwg & Stock Location <i>57514</i>	0.00							
130									
Packaging	Memo	0.00							
Packaging									

1 0 1607.5 34 9-89

1 DAS 38 9-89 JUL 05 2016

1 DAS 6 9-89 JUL 06 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
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Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.02							
Quality Control									

DAS
21
9-89

JUL 06 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

June 22, 2016 10:32:30 AM

Page 1

Work Order ID: 148058

148058

Parent Item: D4038-041

D4038-041

Parent Item Name: Angle Assy Fwd LH

Start Date: 6/22/2016

Required Date: 7/6/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 10-04-21 JLM VERIFIED BY:EC IPP
Rev:B 11.01.31 as per dwg rev.c DD verified by:ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4038-1		Manufactured	No			100	Each	2.0000	1	1			
D4038-1									**				6 9-89
Angle, Fwd, LH													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST512		2							
				144137		2							DAS 6 9-89
D4038-5		Manufactured	No			100	Each	1.0000	1	1			
D4038-5									**				
Block													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST072		1							
				70416		1							
D4038-9		Manufactured	No			100	Each	0.0000	1	1			
D4038-9									**				
Block													
AN3-14A		Purchased	No			100	Each	93.0000	2	2			
AN3-14A									**				
Bolt													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				over003		80							DAS 6 9-89
				m134634		50							
				m134852		30							
				ST349		13							
				m134360		13							

JUN 2 R 2016

JUN 2 R 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
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Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	Past Due ☐							

Picklist Print

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Page 2

Work Order ID: 148058

148058

Parent Item: D4038-041

D4038-041

Parent Item Name: Angle Assy Fwd LH

Start Date: 6/22/2016

Required Date: 7/6/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

100

Each

1,336.000

2

2

MS21042L3

Nut

Location

Loc Qty

Loc Code

FP001

32

m133790

32

GA

175

m133790

3

m134360

172

ST303

1129

m134039

12

m134634

2

m134754

315

m134943

800

NAS1149D0363J

Purchased

No

100

Each

2,012.000

4

4

NAS1149D0363J

Washer

Location

Loc Qty

Loc Code

GA

431

m134055

431

ST263

1581

m134676

581

m134955

1000

DAS
6
9-89

DAS
6
9-89

JUN 28 2016

DQA: _____ Date: _____

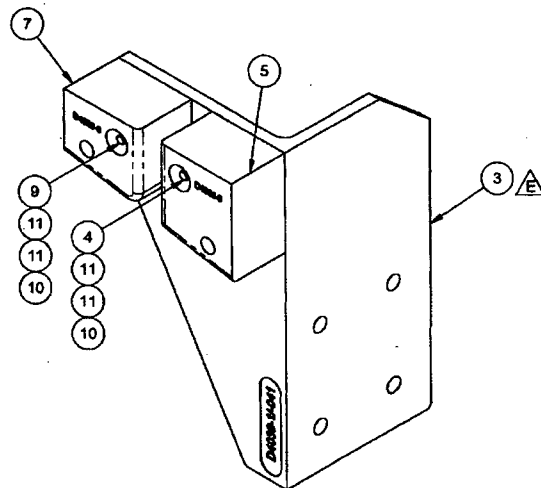
**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

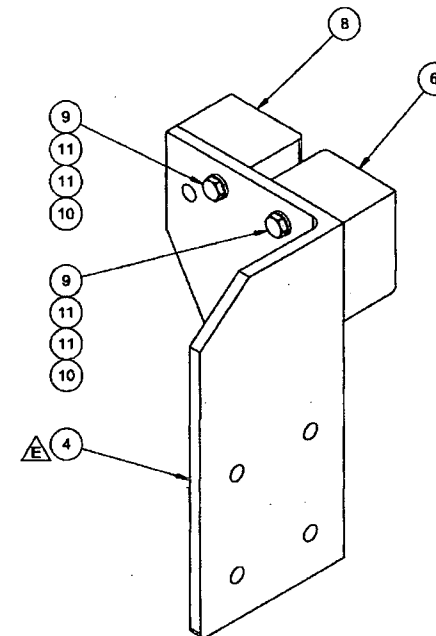
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		☐ OTHER : _____							

ITEM NO.	QTY. -041	QTY. -042	PART NUMBER	DESCRIPTION
1	X		D4038-041	ANGLE ASSEMBLY, FWD, LH
2		X	D4038-042	ANGLE ASSEMBLY, FWD, RH
3	1		D4038-1	ANGLE, FWD, LH
4		1	D4038-2	ANGLE, FWD, RH
5	1		D4038-5	BLOCK
6		1	D4038-6	BLOCK
7	1		D4038-8	BLOCK
8		1	D4038-10	BLOCK
9	2	2	AN3-14A	BOLT
10	2	2	MS21042L3	NUT
11	4	4	NAS1149D0363J	WASHER (AN960JD10)



D4038-041 ANGLE ASSEMBLY, FWD, LH



D4038-042 ANGLE ASSEMBLY, FWD, RH

RELEASED
2011-04-21
JWB

E	1.18 X 1.00 CHAMFER WAS R1.00. REF: NCR11-543.	MB	11.04.11
D	REVISED D4038-7/8/11/12 AS FOLLOWS: 1.87 WAS 1.73 (C7-9); 2.14 WAS 2.00 (C4-8); 2.13 WAS 2.00 (C7-10); 1.86 WAS 1.73 (C4-10); 1.52 WAS 1.38 (C7-13); 1.78 WAS 1.65 (C4-13); 1.77 WAS 1.65 (C7-14); 1.49 WAS 1.38 (C4-14). REASON: NCR11-456.	MB	11.03.03
C	REVISED D4038-3/4 AS FOLLOWS: 0.589 WAS 0.714 (B2-5, B4-6); D4038-043/044 ARE AFFECTED. REASON: NCR11-399.	MB	11.01.20
B	REVISED DIMENSIONS ALL SHEETS, ADD Ø0.316 HOLES IN -1/2/-3/4 PARTS, ADD RADIUS TO -1/2/-3/4 PARTS	HS	10.01.05
A	NEW ISSUE	HS	09.12.14
REV.	DESCRIPTION	BY	DATE
DESIGN	JE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4038 REV. E SHEET 1 OF 14 TITLE BRACKET SCALE NTS COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON OR ENTITY WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	JE		
CHECKED	JP		
MFG. APPR.	JP		
APPROVED	JP		
DE APPR.	JP	DATE 11.04.11	

NOTES:
1) MATERIAL: N/A
2) FINISH: POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: -041 - 1.75 lbs
-042 - 1.74 lbs

6/22/16
148058 SH

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